

FIG. 1

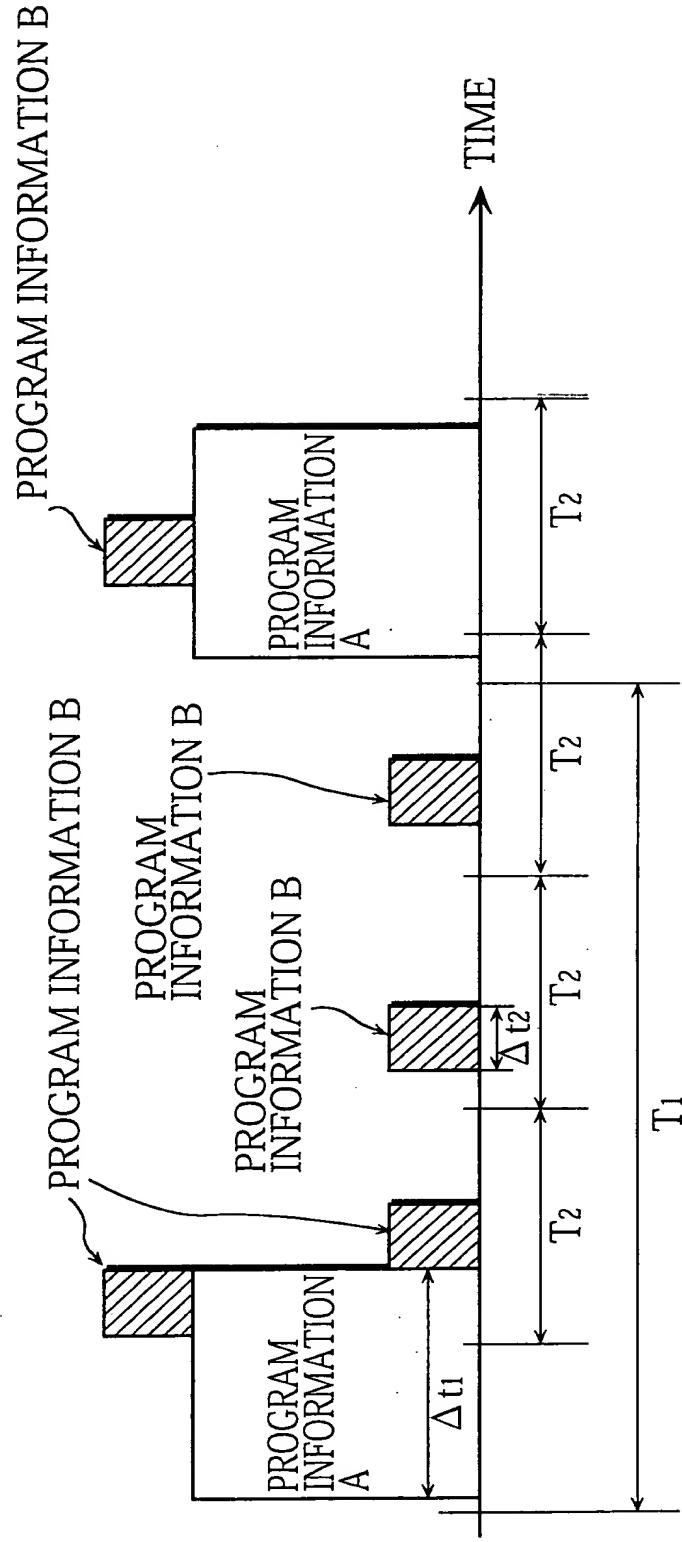


FIG. 2

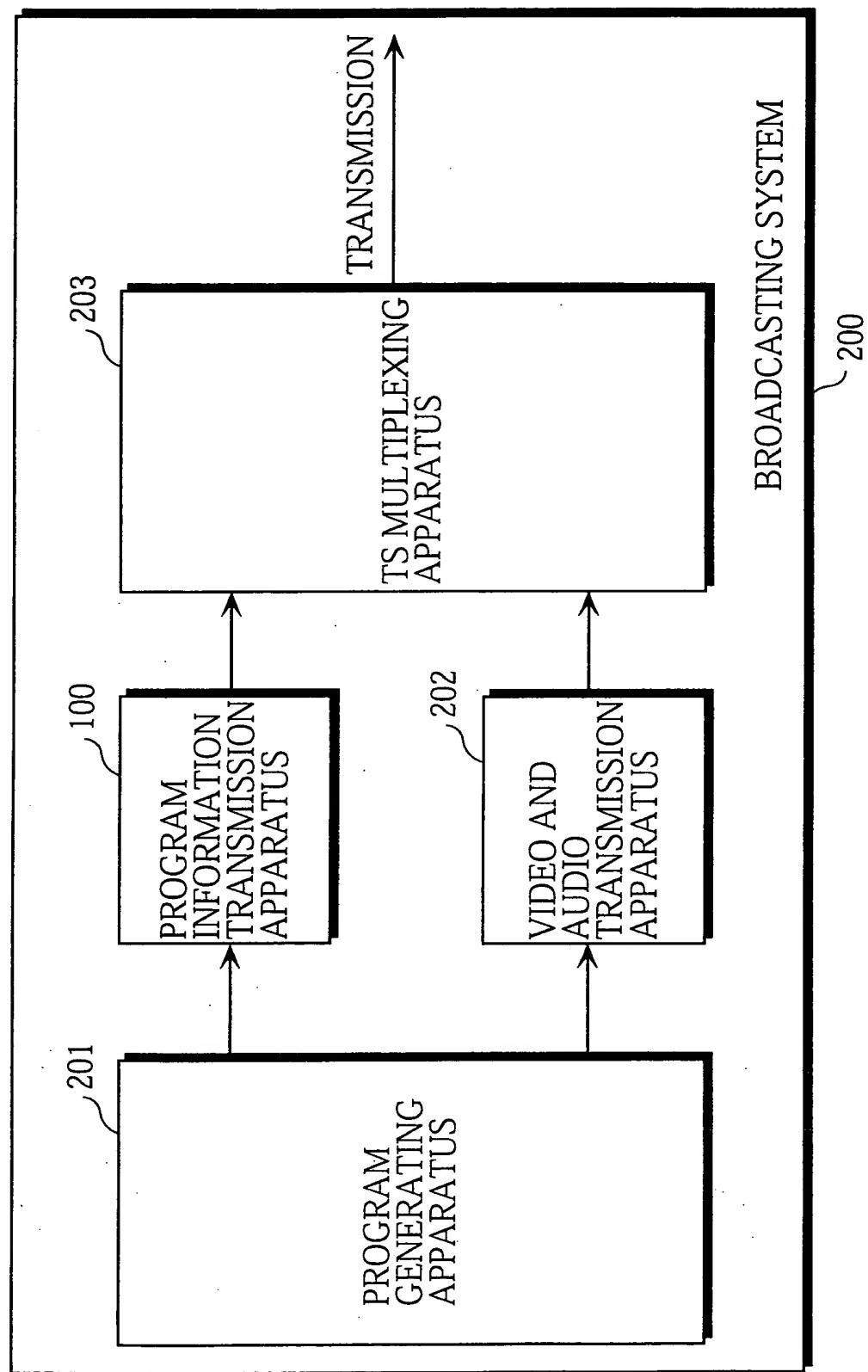


FIG. 3

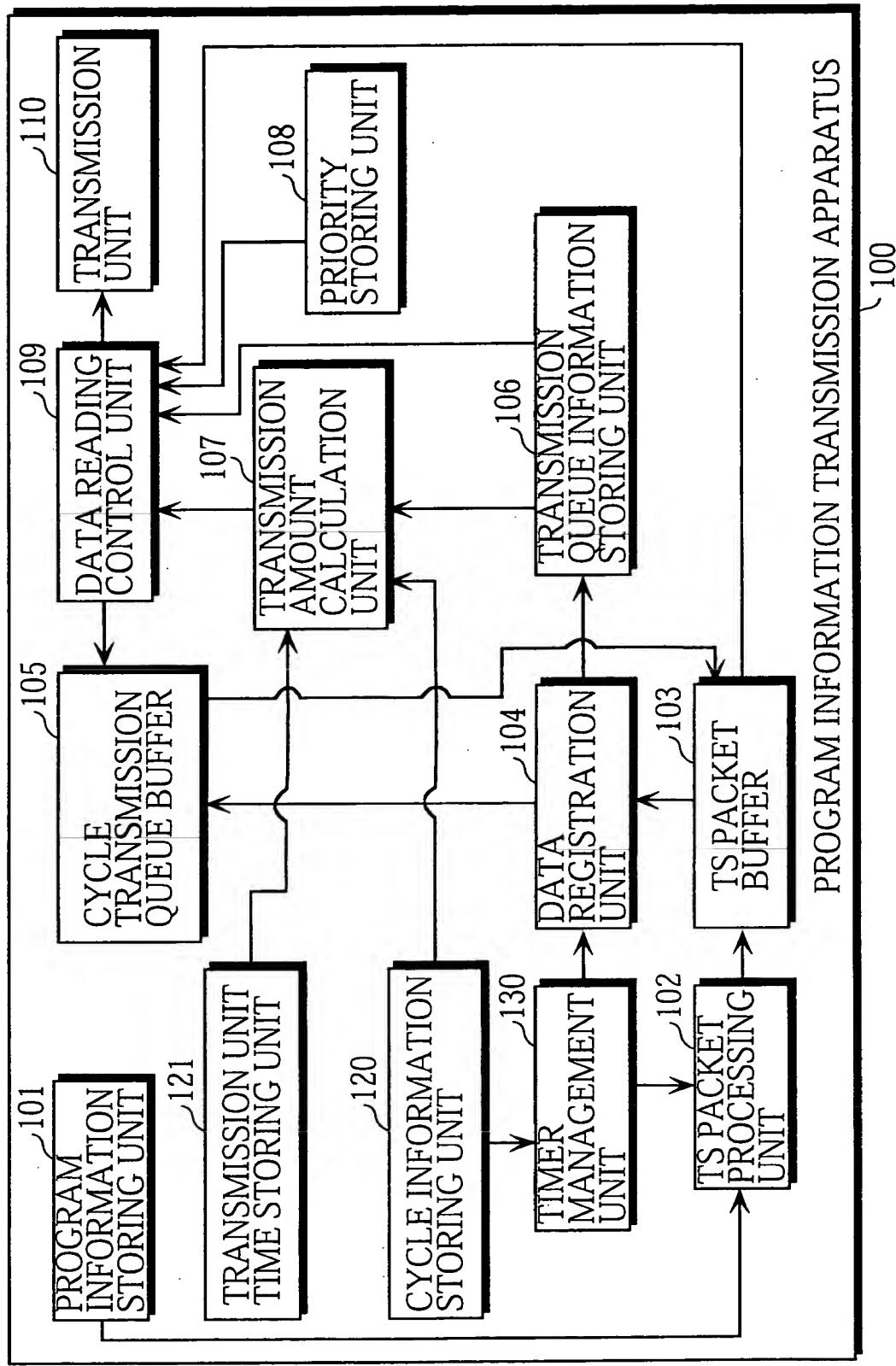


FIG. 4A

PROGRAM INFORMATION A

CHANNEL 3	301	302	303	304	
CHANNEL 2					
CHANNEL 1					
START TIME	BROADCAST LENGTH	SIZE	PROGRAM DESCRIPTION		
1999/10/14 11:00	00:30	200byte	MORNING NEWS		
1999/10/14 11:30	00:45	100byte	AFTERNOON NEWS		
1999/10/14 12:15	01:00	450byte	AFTERNOON TV DRAMA		
⋮					
1999/10/16 23:00	00:50	200byte	MIDNIGHT NEWS		

FIG. 4B

PROGRAM INFORMATION B

CHANNEL 100					
CHANNEL 3	301	302	303	304	
CHANNEL 2					
CHANNEL 1					
START TIME	BROADCAST LENGTH	SIZE	PROGRAM DESCRIPTION		
1999/10/14 11:00	00:30	250byte	TV DRAMA		
1999/10/14 11:30	00:45	200byte	VARIETY SHOW		
1999/10/14 12:15	01:00	500byte	WORLD NEWS		
⋮					
1999/10/16 23:00	00:50	300byte	PROFESSIONAL BASEBALL NEWS		

FIG. 4C

PROGRAM INFORMATION C

CHANNEL 3	301	302	303	304	
CHANNEL 2					
CHANNEL 1					
START TIME	BROADCAST LENGTH	SIZE	PROGRAM DESCRIPTION		
1999/10/14 11:00	00:30	200byte	MORNING NEWS		
1999/10/14 11:30	00:45	100byte	AFTERNOON NEWS		
1999/10/14 12:15	01:00	450byte	AFTERNOON TV DRAMA		
⋮					
1994/11/13 23:00	00:50	190byte	MIDNIGHT NEWS		

FIG. 5

TYPE OF PROGRAM INFORMATION	CYCLE LENGTH
PROGRAM INFORMATION A(TableA)	3 SECONDS
PROGRAM INFORMATION B(TableB)	10 SECONDS
PROGRAM INFORMATION C(TableC)	10 SECONDS

FIG. 6

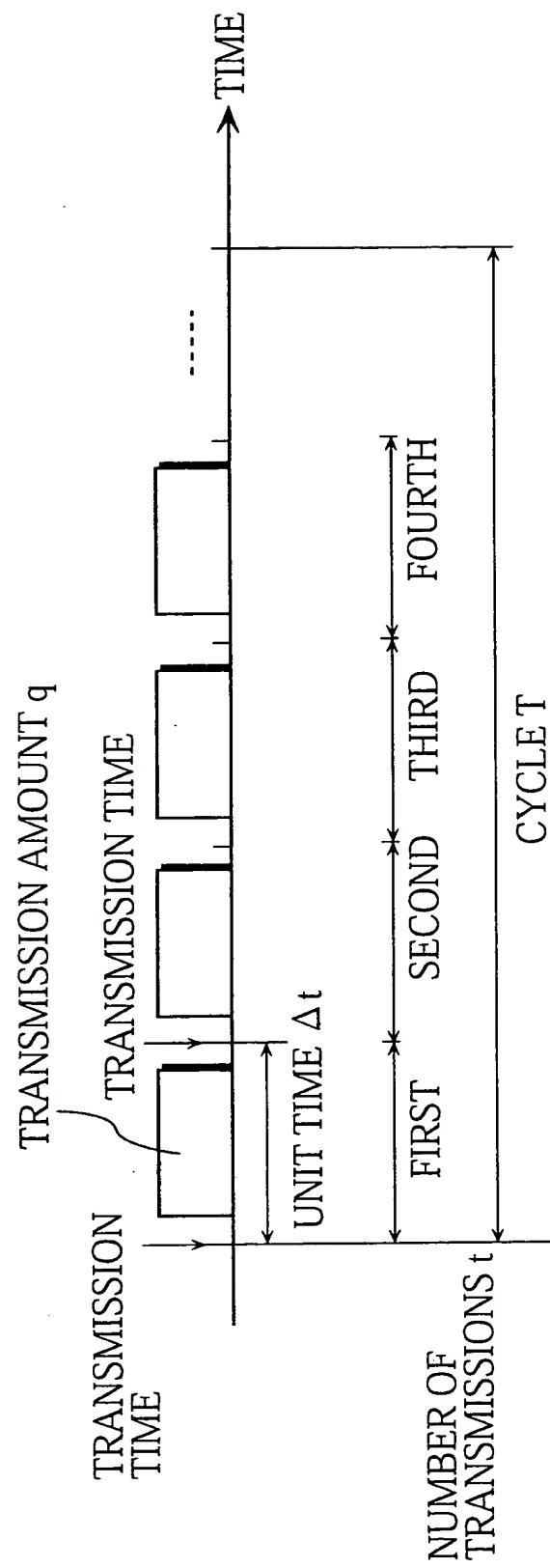


FIG. 7A

CYCLE=THREE SECONDS			
A1[1]	A1[2]	A1[3]	A1[4]
A2[1]	A2[2]	A2[3]	A2[4]
A3[1]	A3[2]	A3[3]	A3[4]

FIG. 7B

CYCLE=TEN SECONDS			
B1[1]	B1[2]	B1[3]	B1[4]
B2[1]	B2[2]	B2[3]	B2[4]
•	•	•	•
•	•	•	•
B100[1] B100[2] B100[3] B100[4]			
C1[1]	C1[2]	•	C1[21]
C2[1]	C2[2]	•	C2[20]
C3[1]	C3[2]	•	C3[19]
			C1[22]
			C2[21]
			C3[20]
			C1[39]
			C2[37]
			C3[39]
			C1[40]
			C2[38]
			C3[40]
			C1[61]
			C2[59]
			C3[61]
			C1[62]
			C2[70]
			C3[76]
			C1[69]

FIG. 8

CYCLE TRANSMISSION QUEUE BUFFER 105

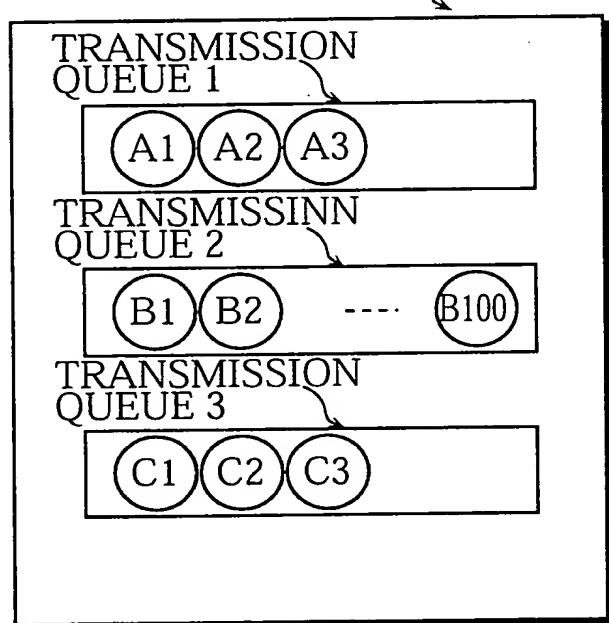


FIG. 9

TRANSMISSION QUEUE 1 TableA	
SubTable	Section1
A1	4
A2	4
A3	4

TRANSMISSION QUEUE 2 TableB	
SubTable	Section1
B1	4
B2	4
.	.
.	.
B100	4

TRANSMISSION QUEUE 3 TableC				
SubTable	Section1	Section2	Section3	Section4
C1	21	18	22	8
C2	20	17	22	
C3	19	20	22	15

FIG. 10

Table	PRIORITY
TableA	1
TableB	2
TableC	3

FIG. 11

Table	CYCLE	UNIT TIME PERIOD	NUMBER OF TRANSMISSION PERIODS	NUMBER OF PACKETS	NUMBER OF PACKETS PER UNIT TIME PERIOD	EMi	EL
TableA	THREE SECONDS	100ms	30回	12	0.4	1	
TableB	TEN SECONDS	100ms	100回	400	4	5	9
TableC	TEN SECONDS	100ms	100回	204	2.04	3	

FIG. 12

CRITERION A-1	The number of packets that are transmitted per unit time period does not exceed the standard total transmission amount EL.
CRITERION B-1	The continuity of packets of a section is not interrupted by packets of another section during transmission
CRITERION B-2	Packets of tables given higher priorities are transmitted first .
CRITERION B-3	When the amount of transmitted packets of a current table reaches a corresponding standard table transmission amount Emi, the current table is switched to the next table.

FIG. 13

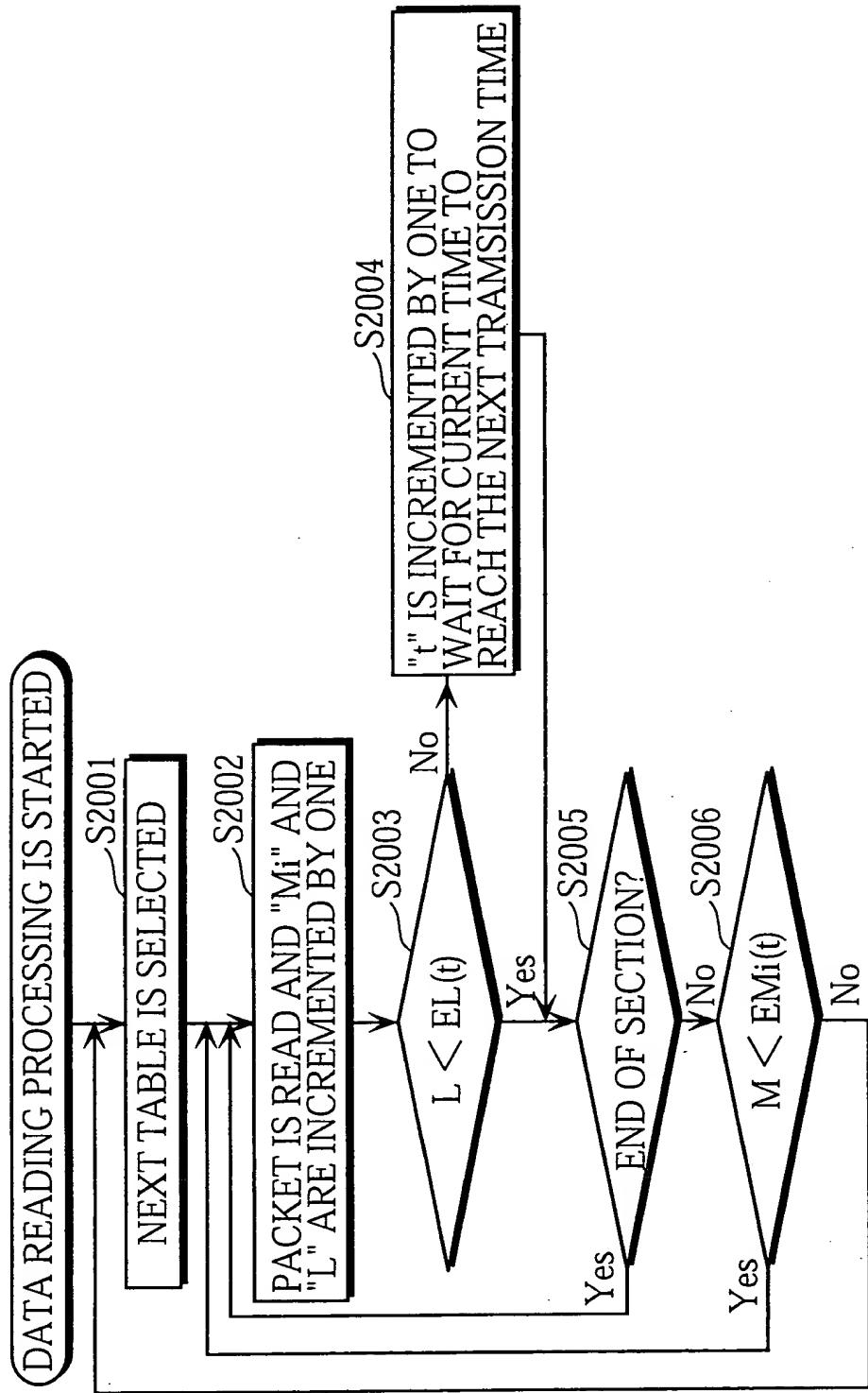


FIG. 14A

NUMBER OF TRANSMISSIONS t	no.1	no.2	no.3	no.4	no.5	no.6	no.7	no.8	no.9
1	A1	A1	A1	A1	B1	B1	B1	B1	B2
2	B2	B2	B2	B3	B3	B3	B3	C1	C1
3	C1	C1	C1	C1	C1	C1	C1	C1	C1
4	C1								
5	C1	A2	A2	A2	A2	B4	B4	B4	B4
6	B5	B5	B5	B5	B6	B6	B6	B6	B7
7	B7	B7	B7	B8	B8	B8	B8	B9	B9
8	B9	B9	B10	B10	B10	B10	C2	C2	C2

FIG. 14B

NUMBER OF TRANSMISSIONS t	TableA		TableB		TableC		
	EM1(t)	M1	EM2(t)	M2	EM3(t)	M3	EL(t)
1	1	4	5	5	3	0	9
2	2	4	10	12	6	2	18
3	3	4	15	12	9	11	27
4	4	4	20	12	12	20	36
5	5	8	25	16	15	21	45
6	6	8	30	25	18	21	54
7	7	8	35	34	21	21	63
8	8	8	40	40	24	24	72

FIG. 15

Table	CYCLE	UNIT TIME PERIOD	NUMBER OF TRANSMISSION PERIODS	NUMBER OF PACKETS PER UNIT TIME PERIOD	$ES_i(t)$	$EM_i(t)$	$EL_i(t)$
TableA	THREE SECONDS	100ms	12	0.4	$0.5 \times t$	$INT(ES_1(t) + 0.9)$	$ME1(t)$
TableB	TEN SECONDS	100ms	400	4	$4.1 \times t$	$INT(ES_2(t) + 0.9)$	$+ EM2(t)$
TableC	TEN SECONDS	100ms	204	2.04	$2.1 \times t$	$INT(ES_3(t) + 0.9)$	$+ EM3(t)$

FIG. 16A

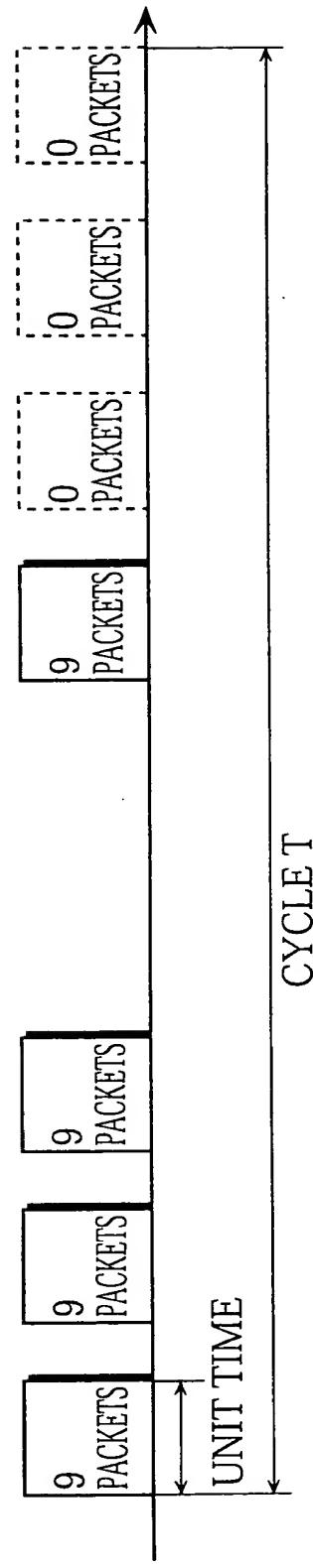
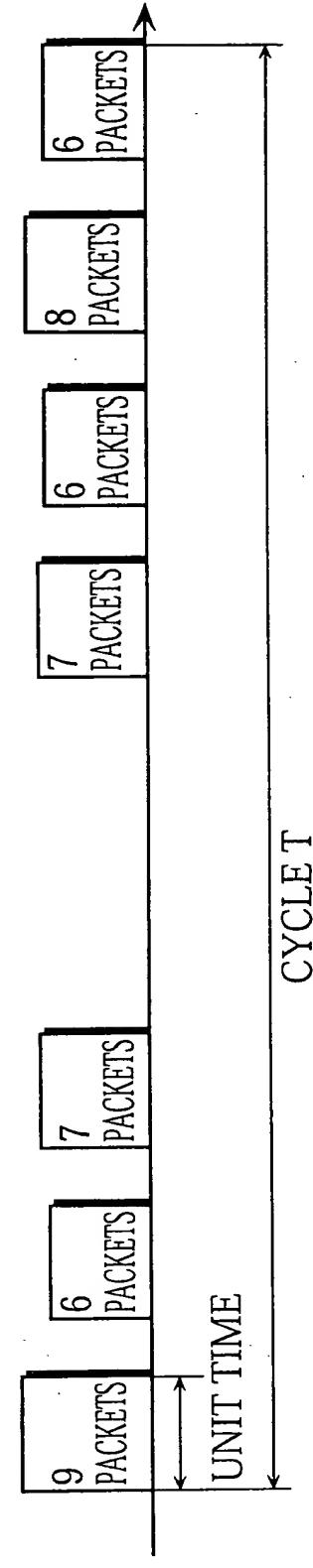


FIG. 16B



## 17A

SESSIONS	no.1		no.2		no.3		no.4		no.5		no.6		no.7		no.8		no.9	
	A1	A1	A1	B2	B2	A1	B3	B3	B1	B1	B3	B1	B1	B4	B4	B1	B1	B2
	B2	B2	B4	B4	B4	B4	B4	B4	B4	B4	B4	B4	B4	B4	B4	B4	B4	B4
C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1
C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1
C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1	C1
B5	B5	B5	B5	B5	B5	B5	B5	B5	B5	B5	B6	B6	B6	B6	B6	B6	B6	B6
B6	B7	B7	B7	B7	B7	B7	B7	B7	B7	B7	B8	B8	B8	B8	B8	B8	B8	B8

## 17B

SESSIONS	TableA			TableB			TableC			EL(t)
	ES1(t)	EM1(t)	M1	ES2(t)	EM2(t)	M2	ES3(t)	EM3(t)	M3	
0.5	1	4	4.1	5	5	2.1	3	0	9	
1.0	1	4	8.2	9	11	4.2	5	0	15	
1.5	2	4	12.3	13	16	6.3	7	2	22	
2.0	2	4	16.4	17	16	8.4	9	8	28	
2.5	3	4	20.5	21	16	10.5	11	15	35	
3.0	3	4	24.6	25	16	12.6	13	21	41	
3.5	4	4	28.7	29	23	14.7	15	21	48	
4.0	4	4	32.8	33	29	16.8	17	21	54	

FIG. 18

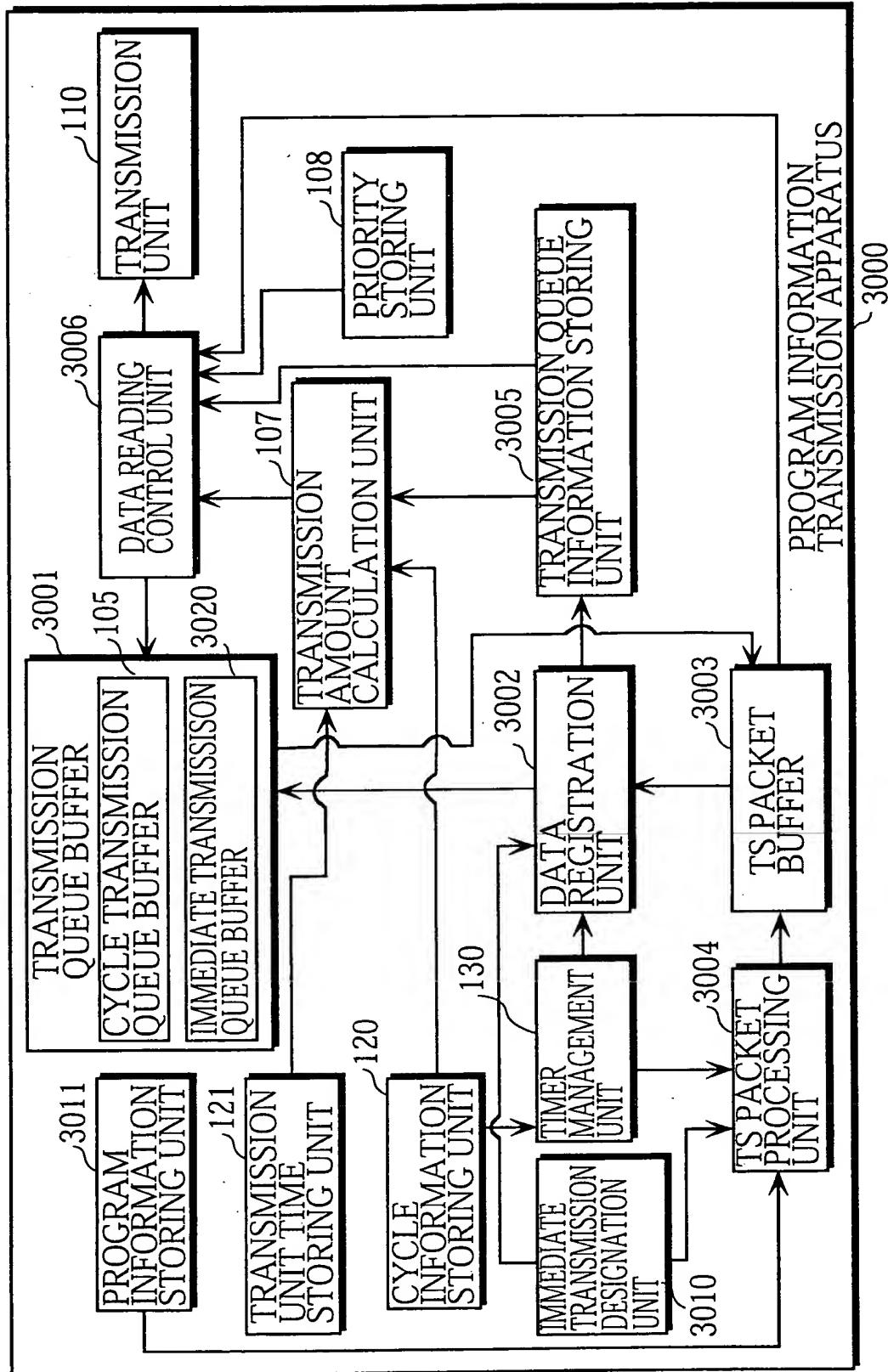


FIG. 19A CYCLE=THREE SECONDS

A1[1]	A1[2]	A1[3]	A1[4]
A2[1]	A2[2]	A2[3]	A2[4]
A3[1]	A3[2]	A3[3]	A3[4]

FIG. 19A CYCLE=THREE SECONDS

FIG. 19B CYCLE=TEN SECONDS

B1[1]	B1[2]	B1[3]	B1[4]
B2[1]	B2[2]	B2[3]	B2[4]
•	•	•	•
•	•	•	•
B100[1]	B100[2]	B100[3]	B100[4]
C1[1]	C1[2]	C1[21]	C1[22]
C2[1]	C2[2]	C2[20]	C2[21]
C3[1]	C3[2]	C3[19]	C3[20]

FIG. 19B CYCLE=TEN SECONDS

FIG. 19C IMMEDIATE

D1[1]	D1[2]	D1[3]	D1[4]
D2[1]	D2[2]	D2[3]	D2[4]
D3[1]	D3[2]	D3[3]	D3[4]

FIG. 20

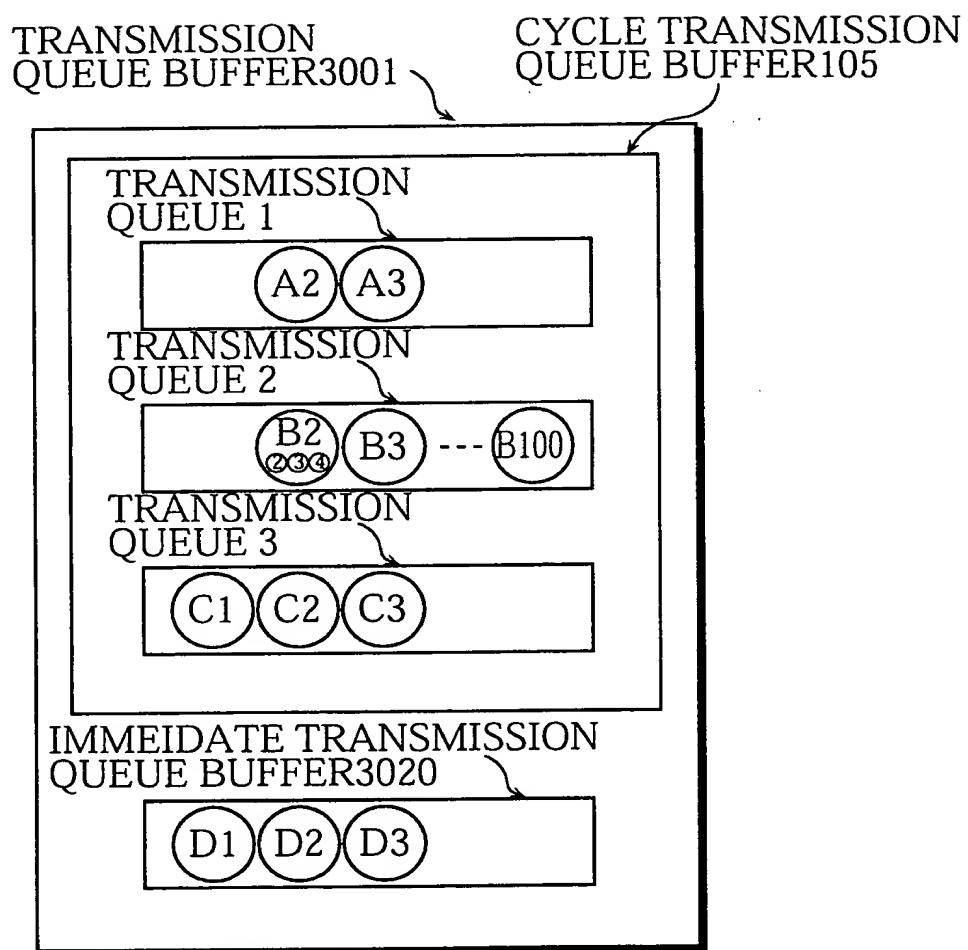


FIG. 21

TRANSMISSION QUEUE 1 TableA	
SubTable	Section1
A1	4
A2	4
A3	4

TRANSMISSION QUEUE 2 TableB	
SubTable	Section1
B1	4
B2	4
.	.
.	.
B100	4

TRANSMISSION QUEUE 3 TableC				
SubTable	Section1	Section2	Section3	Section4
C1	21	18	22	8
C2	20	17	22	
C3	19	20	22	15

IMMEDIATE TRANSMISSION QUEUE BUFFER TableD	
SubTable	Section1
D1	4
D2	4
D3	4

FIG. 22

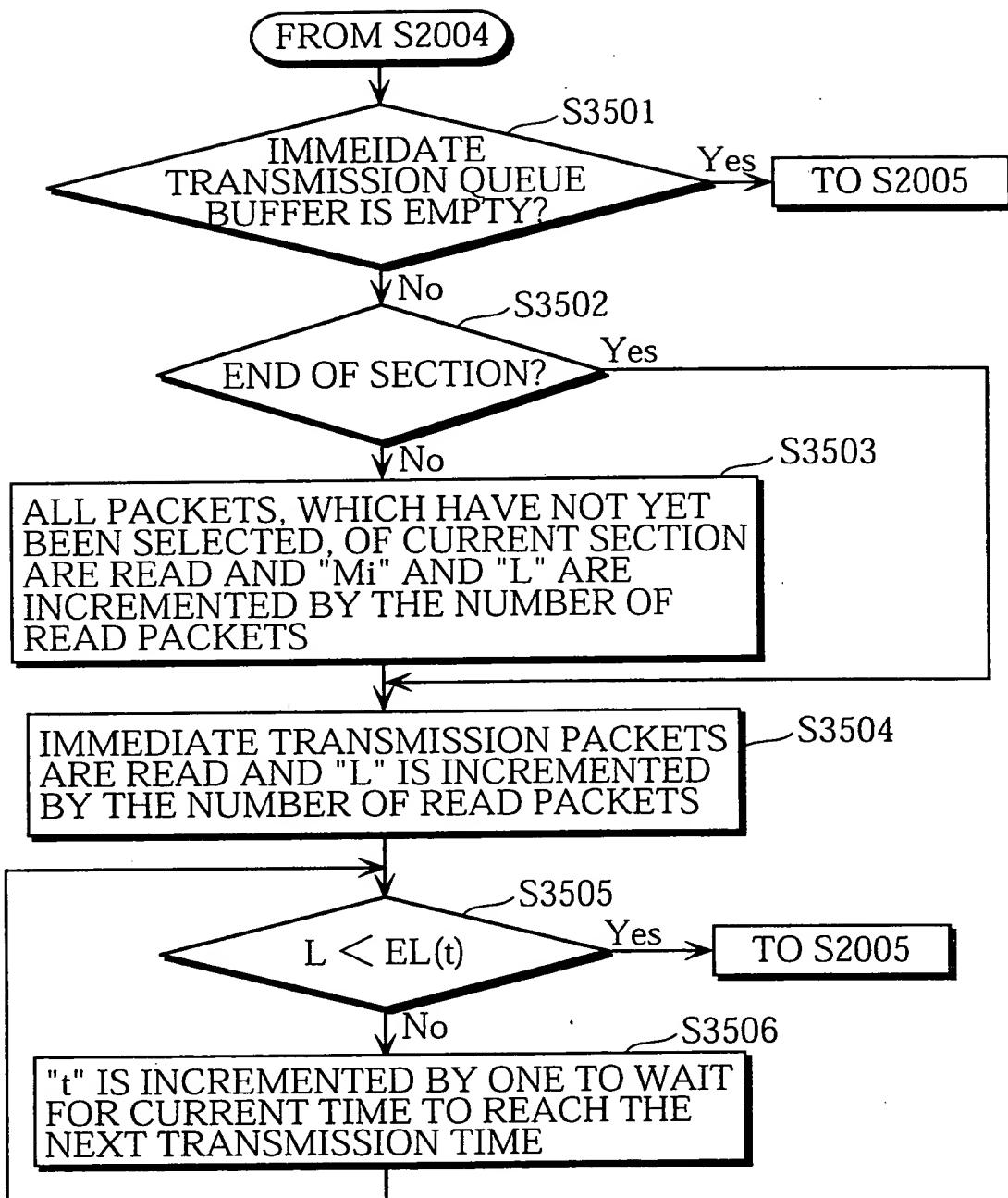


FIG. 23A

FIG. 23B